Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

**Growing Ryegrass**

**Question:** How will varying an environmental condition (ex. amount of fertilizer) affect the growth of rye grass?

**Background info:**

Ryegrass (*Lolium*) is a genus of nine species of tufted grasses in the Potidaea subfamily of the Poaceae family. They are characterized by bunch-like growth habits. These plants are native to Europe, Asia and northern Africa, but are widely cultivated and naturalized elsewhere. Ryegrass should not be confused with rye, which is a grain crop.

**Materials**:

Rye grass seeds

Soil

Various planting containers

Water (tap, distilled, spring)

Various acids & bases

Various light sources (window, lamps, drawers - no light)

Fertilizer

Thermometer

Volume measuring tools (ex. beakers)

Ruler

**Possible variables to test**

Spacing (ex. type of container)

Packing vs nonpacking of soil

Type of water

Amount of water

Soil vs no soil

Different lighting (or no light)

pH (more acidic or basic)

Temperature

Other??

My group will test the affect of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on the growth of rye grass. This is our INDEPENDENT VARIABLE!

We will specifically measure the growth of rye grass by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This is our DEPENDENT VARIABLE.

Our **hypothesis** is…

*If \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*then \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

The variables we will keep constant are…

Our **procedure**is...

Sample data table

Table 1: Amount of rye grass growth

|  |  |  |  |
| --- | --- | --- | --- |
|  | Experimental condition | Experimental condition | Control |
| Day 1 | No growth | No growth | No growth |
| Day 2 | No growth | No growth | No growth |
| Day 3 | Sprouted 1 cm | Sprouted 1.5 cm | Sprouted 2 cm |